



Attorney Docket No. 9138-0023US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hoppensteadt et al. :

Serial No.: 09/771,019 : Examiner: Hirl, Joseph P.

Filed: January 26, 2001 : Group Art Unit: 2129

TITLE: **PHASE-LOCKED LOOP OSCILLATORY NEUROCOMPUTER**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF EUGENE IZHIKEVICH

I, Eugene Izhikevich, declare:

1. I am, with Dr. Frank C. Hoppensteadt, co-inventor and co-applicant in the patent application identified above ("the application").
2. I have a Ph.D. in Mathematics from Michigan State University.
3. At the time of filing the application I was Visiting Professor of Mathematics at Arizona State University.
4. Presently, I hold the position of Senior Fellow in Theoretical Neurobiology at the Neurosciences Institute.
5. I have read the application.
6. The Detailed Description of the invention contained at pages 3 through 11 of the application and the drawings describe the best mode known to me of carrying out my and Dr. Hoppensteadt's invention to which the application relates as of the January 28, 2000 filing date to which I understand the application is entitled.
7. The coupling of the outputs of the weighting network 21 to the phase-locked loop circuits 25 can be done by means other than the band pass filters 35. Directly electrically

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connecting (the equivalent of an all-pass band pass filter), inductive coupling and resistive coupling are examples of means by which the outputs of the weighting networks 21 can be coupled to the phase-locked loop circuits 25 and still achieve operation of the invention as described in the application.

8. I further declare that all statements made herein of my own knowledge are true to the best of my belief and that all statements made on information and belief are believed to be true, and make this declaration under penalty of perjury.

Further deponent sayeth not.

Respectfully submitted,

EUGENE IZHIKEVICH

Date:



Feb. 21, 07